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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,732	08/31/2001	Kuang-Tse Chin	HSU-29	1344
2292	7590	12/27/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LUK, EMMANUEL S	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,732

Applicant(s)

CHIN, KUANG-TSE

Examiner

Emmanuel S. Luk

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3, 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gittner et al (5326258) in view of Hagen (3479690).

Gittner teaches an apparatus for heating preform blanks, the preforms (1) are position in holders (3) on a conveyor (32) and the preforms are subjected to a series of heating and cooling stations (24). The heating rods are adjustable in height (Col. 8, lines 1-12). The temperature is controlled (Col. 8, lines 56-59) and thus allows for the desired crystallinity of the preforms, the preforms are removed via gripping means (Col. 11, line 13), or tongues (5), from the conveyor. A slant guide surface on the slide rail

(160), a rotary disk is present (150) which contains a meshing part (150b). Gittner teaches the reheating of preform blanks that are also bottle blanks (Col. 1, lines 48-60).

Gittner fails to teach an input zone comprising of a shift device and positioning slide device, releasing zone and two parallel cycling conveyers.

Hagen teaches an apparatus for producing hollow plastic articles having two conveyers (14', 137) with a plurality of loaders (15a-15c), an input zone and releasing zone (Fig. 5) with shift device (150) and positioning slide rail (149) two cooling zones (73, 123) and means for interior cooling of the articles (Col. 15, lines 6-25). The orientation of the conveyers is merely a rearrangement of the conveyers for directing the articles to the desired location from the molding station. The shift during the heating and cooling of the preforms from one conveyor to the next would result with a heating zone located in the lower portion.

In regards to the upper and lower heating sources, Gittner has both upper and lower sets of heaters (Fig. 1). These sets are capable of heating the various locations that is desired of the product and loader.

It would have been obvious to one of ordinary skill in the art to modify Gittner with the input and releasing zone and conveying means as taught by Hagen because it allows for transfer of the preforms to different conveyers thereby increasing flexibility in the production line.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krueger (2440959) in view of Gittner and Hagen.

Krueger teaches a rotary disk (66) having gaps (63) between teeth (66a) for locating articles, a central shaft (62) with transmission gear disk (78), a protect carrier (88) and the rotary disk having two connecting ends to connect with the feed element (see C3) and positioning slide rail (see C4), a single ascend wedge is disposed under the vertical disk with a tilt bottom (Fig. 3-7).

Krueger fails to teach a plurality of loaders, cycling conveyors, heater and cooling zones and multiple ascend wedges.

Gittner teaches an apparatus for heating preform blanks, the preforms (1) are position in holders (3) on a conveyor (32) and the preforms are subjected to a series of heating and cooling stations (24). The temperature is controlled (Col. 8, lines 56-59) and thus allows for the desired crystallinity of the preforms, the preforms are removed via gripping means (Col. 11, line 13), or tongues (5), from the conveyor. A slant guide surface on the slide rail (160), a rotary disk is present (150) which contains a meshing part (150b). In regards to the upper and lower heating sources, Gittner has both upper and lower sets of heaters (Fig. 1), the heaters are adjustable in height (Col. 8, lines 1-12). These sets are capable of heating the various locations that is desired of the product and loader. Gittner teaches the reheating of preform blanks that are also bottle blanks (Col. 1, lines 48-60).

Hagen teaches an apparatus for producing hollow plastic articles having two conveyers (14', 137) with a plurality of loaders (15a-15c), an input zone and releasing zone (Fig. 5) with shift device (150) and positioning slide rail (149) two cooling zones (73, 123) and means for interior cooling of the articles (Col. 15, lines 6-25). The

orientation of the conveyors is merely a rearrangement of the conveyors for directing the articles to the desired location from the molding station. The shift during the heating and cooling of the preforms from one conveyor to the next would result with a heating zone located in the lower portion.

Krueger teaches a single ascend wedge and tilt bottom, this has the equivalent function as the multiple ascend wedges located under the disk. It would have been obvious to one of ordinary skill in the art to have multiple wedges and tilt bottoms for changing the position of the articles.

It would have been obvious to one of ordinary skill in the art to modify Krueger with the input and releasing zone and conveying means as taught by Hagen because it allows for transfer of the preforms to different conveyors thereby increasing flexibility in the production line and loaders and conveyors and heating and cooling zones as taught by Gittner because it would allow for curing of the articles while changing the position of the articles.

5. Claim 2 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Gittner in view of Hagen as applied to claims 1, 3 and 5-7 above, and further in view of Krueger (2440959).

Gittner fails to teach a rotary disk with gaps.

Krueger teaches a rotary disk (66) having gaps (63) between teeth (66a) for locating articles, a central shaft (62) with transmission gear disk (78), a protect carrier (88) and the rotary disk having two connecting ends to connect with the feed element

(see C3) and positioning slide rail (see C4), a single ascend wedge is disposed under the vertical disk with a tilt bottom (Fig. 3-7).

It would have been obvious to one of ordinary skill in the art to modify Gittner with the rotary disk as taught by Kruger for changing the position of the articles.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gittner in view of Hagen as applied to claims 1, 3 and 5-7 above, and further in view of Wiatt (4382760).

Gittner fails to teach stripper plates.

Wiatt teaches preforms (20) being removed from sleeves and inserted into carriers (22) by transfer plate (604) and preform grasping jaws (612, 614) and the plates having a through hole (Fig. 7).

It would have been obvious to one of ordinary skill in the art to modify Gittner with plates as taught by Wiatt for removal of a plurality of articles simultaneously.

7. Claims 10, 12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gittner in view of Hagen and Kieras et al.

Gittner teaches an apparatus for heating preform blanks, the preforms (1) are position in holders (3) on a conveyor (32) and the preforms are subjected to a series of heating and cooling stations (24). The heaters are adjustable in height (Col. 8, lines 1-12). The temperature is controlled (Col. 8, lines 56-59) and thus allows for the desired crystallinity of the preforms, the preforms are removed via gripping means (Col. 11, line

13), or tongues (5), from the conveyor. A slant guide surface on the slide rail (160), a rotary disk is present (150) which contains a meshing part (150b). Gittner teaches the reheating of preform blanks that are also bottle blanks (Col. 1, lines 48-60).

Gittner fails to teach an input zone comprising of a shift device and positioning slide device, releasing zone, two parallel cycling conveyers and infrared sensors to control the temperature loaders.

Hagen teaches an apparatus for producing hollow plastic articles having two conveyers (14', 137) with a plurality of loaders (15a-15c), an input zone and releasing zone (Fig. 5) with shift device (150) and positioning slide rail (149) two cooling zones (73, 123) and means for interior cooling of the articles (Col. 15, lines 6-25). The orientation of the conveyers is merely a rearrangement of the conveyers for directing the articles to the desired location from the molding station. The shift during the heating and cooling of the preforms from one conveyor to the next would result with a heating zone located in the lower portion.

Kieras et al teaches an apparatus having an indexing table with a plurality of mandrels for holding hollow thermoplastic articles that are moved to multiple heating stations. Kieras utilizes infrared sensors for detecting the temperature of the articles and the signals are imputed to the PLC device to control the temperature at the stations.

In regards to the upper and lower heating sources, Gittner has both upper and lower sets of heaters (Fig. 1). These sets are capable of heating the various locations that is desired of the product and loader.

It would have been obvious to one of ordinary skill in the art to modify Gittner with the input and releasing zone and conveying means as taught by Hagen because it allows for transfer of the preforms to different conveyors thereby increasing flexibility in the production line and the sensor and control system as taught by Kieras because it allows for controlling the article at a desired temperature.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gittner in view of Hagen and Kieras as applied to claims 10, 12 and 14-16 above, and further in view of Krueger (2440959).

Gittner fails to teach a rotary disk with gaps.

Krueger teaches a rotary disk (66) having gaps (63) between teeth (66a) for locating articles, a central shaft (62) with transmission gear disk (78), a protect carrier (88) and the rotary disk having two connecting ends to connect with the feed element (see C3) and positioning slide rail (see C4), a single ascend wedge is disposed under the vertical disk with a tilt bottom (Fig. 3-7).

It would have been obvious to one of ordinary skill in the art to modify Gittner with the rotary disk as taught by Krueger for changing the position of the articles.

9. Claims 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krueger (2440959) in view of Gittner, Hagen and Kieras.

Krueger teaches a rotary disk (66) having gaps (63) between teeth (66a) for locating articles, a central shaft (62) with transmission gear disk (78), a protect carrier

(88) and the rotary disk having two connecting ends to connect with the feed element (see C3) and positioning slide rail (see C4), a single ascend wedge is disposed under the vertical disk with a tilt bottom (Fig. 3-7).

Krueger fails to teach a plurality of loaders, cycling conveyors, heater and cooling zones infrared sensors to control the temperature loaders and multiple ascend wedges.

Gittner teaches an apparatus for heating preform blanks, the preforms (1) are position in holders (3) on a conveyor (32) and the preforms are subjected to a series of heating and cooling stations (24). The heaters are adjustable in height (Col. 8, lines 1-12). The temperature is controlled (Col. 8, lines 56-59) and thus allows for the desired crystallinity of the preforms, the preforms are removed via gripping means (Col. 11, line 13), or tongues (5), from the conveyor. A slant guide surface on the slide rail (160), a rotary disk is present (150) which contains a meshing part (150b). In regards to the upper and lower heating sources, Gittner has both upper and lower sets of heaters (Fig. 1). These sets are capable of heating the various locations that is desired of the product and loader. Gittner teaches the reheating of preform blanks that are also bottle blanks (Col. 1, lines 48-60).

Hagen teaches an apparatus for producing hollow plastic articles having two conveyors (14', 137) with a plurality of loaders (15a-15c), an input zone and releasing zone (Fig. 5) with shift device (150) and positioning slide rail (149) two cooling zones (73, 123) and means for interior cooling of the articles (Col. 15, lines 6-25). The orientation of the conveyors is merely a rearrangement of the conveyors for directing the articles to the desired location from the molding station. The shift during the heating

and cooling of the preforms from one conveyor to the next would result with a heating zone located in the lower portion.

Kieras et al teaches an apparatus having an indexing table with a plurality of mandrels for holding hollow thermoplastic articles that are moved to multiple heating stations. Kieras utilizes infrared sensors for detecting the temperature of the articles and the signals are imputed to the PLC device to control the temperature at the stations.

Krueger teaches a single ascend wedge and tilt bottom, this has the equivalent function as the multiple ascend wedges located under the disk. It would have been obvious to one of ordinary skill in the art to have multiple wedges and tilt bottoms for changing the position of the articles.

It would have been obvious to one of ordinary skill in the art to modify Krueger with loaders, conveyors and heating and cooling zones as taught by Gittner because it would allow for curing of the articles while changing the position of the articles, input and releasing zone and conveying means as taught by Hagen because it allows for transfer of the preforms to different conveyors thereby increasing flexibility in the production line and the sensor and control system as taught by Kieras because it allows for controlling the article at a desired temperature.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gittner in view of Hagen as applied to claims 10, 15 and 16 above, and further in view of Wiatt (4382760).

Gittner fails to teach stripper plates.

Wiatt teaches preforms (20) being removed from sleeves and inserted into carriers (22) by transfer plate (604) and preform grasping jaws (612, 614) and the plates having a through hole (Fig. 7).

It would have been obvious to one of ordinary skill in the art to modify Gittner with plates as taught by Wiatt for removal of a plurality of articles simultaneously.

Response to Arguments

11. Applicant's arguments filed 10/12/04 have been fully considered but they are not persuasive. Examiner has considered the applicant's argument concerning the non-responsive issue and agrees that the amendment/response will be considered as responsive. However, Applicant's argument that has now been considered are not persuasive. The applicant's argument concerning the upper and lower heat sources is already shown by the prior art reference, Gittner. The heaters of Gittner are capable of heating the respective portions of the bottle blanks and loader and capable of being the upper and lower heat sources. See Col. 8, lines 1-12.

The orientation of the heat rods relative to the heating blocks and conveyor chain may be either vertical or horizontal (or both with inset mountings to accommodate two sets of rods). Furthermore, the quantity of heat rods to be installed in each of the heating blocks may be selectively modified so as to finely hone the resulting output temperature.

The heating block of the invention can also be selectively elevated or lowered and the spacing between them can be adjusted by various mechanisms for such purposes which are known and well within the skill of the art.

Additionally, Gittner discusses the heating of blanks (preform/bottles). Gittner is capable of heating the mouth of the blank by the position of the lower heater, as the heaters are adjustable in height.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on (571) 272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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